



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,322	02/26/2004	Shoichi Ando	12052.33USD1	9419

7590 11/07/2008  
Hamre, Schumann, Mueller & Larson, P.C.  
P.O. Box 2902-0902  
Minneapolis, MN 55402

EXAMINER
----------

ZHU, WEIPING

ART UNIT	PAPER NUMBER
----------	--------------

1793

MAIL DATE	DELIVERY MODE
-----------	---------------

11/07/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/789,322	<b>Applicant(s)</b> ANDO ET AL.	
	<b>Examiner</b> WEIPING ZHU	<b>Art Unit</b> 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-17,19,21 and 22 is/are pending in the application.
- 4a) Of the above claim(s) 10-17,21 and 22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-9 and 19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. 09/575,348.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Foreign Priority***

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 09/575,348, filed on May 19, 2000.

### ***Status of Claims***

2. Claims 1, 3-9 and 19 are currently under examination, wherein claims 5 and 19 have been amended in applicant's amendment filed on July 16, 2008. Claim 18 has been cancelled in the same amendment.

### ***Status of Previous Rejections***

3. The previous rejections of claims 1, 3-9 and 19 under 35 U.S.C. 103(a) as stated in the Office action dated April 16, 2008 have been maintained.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 61-129246 in view of Tomioka et al. (US 3,532,560) as stated in the Office action dated April 16, 2008.

Art Unit: 1793

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP ('246) in view of Tomioka et al. ('560) as applied to claim 1 above and further in view of JP 07-097656 as stated in the Office action dated April 16, 2008.

6. Claims 5 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP ('246) in view of Tomioka et al. ('560) and further in view of Bach et al. (US 4,704,166) as stated in the Office action dated April 16, 2008.

With respect to the amended feature of claim 5, the application of In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977), MPEP 2112.01 [R-3] I as the ground of rejection of the microstructure features as claimed in the claims 1 and 5 as stated in the Office action dated April 16, 2008 is proper and maintained.

7. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP ('246) in view of Tomioka et al. ('560) and further in view of Bach et al. ('166) as applied to the claim 5 above and further in view of JP ('656) as stated in the Office action dated April 16, 2008.

8. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP ('246) in view of Tomioka et al. ('560) and further in view of JP ('656) and Sakai et al. ('323) as stated in the Office action dated April 16, 2008.

With respect to the amended feature of claim 19, JP ('246) does not disclose the drawing ratio as claimed. Tomioka et al. ('560) discloses that the drawing ratio of a medium carbon steel wire is less than 20% (col. 3, lines 45-56 and col. 7, lines 62-65). The claimed ratio of "approximately 20%" includes the less than 20% as disclosed by Tomioka et al. ('560). It would have been obvious to one of ordinary skill in the art to

Art Unit: 1793

have applied a drawing ratio of less than 20% as disclosed by Tomioka et al. ('560) in the process of JP ('246) in order to achieve the desired diameter and tensile strength of the wire as disclosed by Tomioka et al. ('560) (col. 7, lines 62-65).

### ***Response to Arguments***

9. The applicant's arguments filed on July 16, 2008 have been fully considered but they are not persuasive.

First, the applicant argues that Tomioka et al. ('560) teaches a drawing step applicable to a different structure and for a different purpose than the drawing step in JP ('246). Therefore, there is no motivation to combine the "less than 20%" drawing ratio taught in Tomioka et al. ('560) that is applied to obtain a uniform fine grain sorbite structure on a hardened material, with a drawing step taught in JP ('246) that is applied to a softened annealed material. In response, the examiner notes that the rejection was based on the prior art's broad disclosure rather than preferred embodiments. See MPEP 2123. Tomioka et al. ('560) teaches a drawing ratio of less than 20% applicable to a medium carbon steel (col. 3, lines 45-56 and col. 7, lines 62-65) in order to achieve the desired diameter and tensile strength of the wire (col. 7, lines 62-65). The teachings of Tomioka et al. ('560) apply well to the medium carbon steel of JP ('246). Furthermore, the drawing ratio is obviously a result-effective variable, because it would directly affect the diameter and tensile strength of the wire as disclosed by Tomioka et al. ('560) (col. 7, lines 62-65). Therefore, it would have been obvious to one of ordinary skill in the art to have optimized the drawing ratio in the process of JP ('246) in order to achieve desired diameter and tensile strength of the material. See MPEP 2144.05 II.

Art Unit: 1793

Second, the applicant argues that JP ('246) in view of Tomioka et al. ('560) and further in view of Bach et al. ('166) does not disclose the microstructure features as claimed in the instant claims 1, 5 and 9. In response, see the reason for the rejection of amended features in the instant claim 5 in the paragraph 6 above. The application of In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977), MPEP 2112.01 [R-3] I as the ground of rejection as stated in the Office action dated April 16, 2008 is proper and maintained.

Third, the applicant argues that Tomioka et al. ('560) teaches that a pearlite structure is undesirable. In response, the examiner notes that Tomioka et al. ('560) only teaches coarse pearlite is undesirable (col. 7, lines 32-37).

Fourth, the applicant argues that Bach et al. ('166) expressly teaches away from forming the surface layer of martensite. In response, the examiner notes that Bach et al. ('166) does disclose quenching the blank to form a thin surface layer of martensite would reduce the cooling line length (col. 2, lines 30-32).

Fifth, the applicant argues that Tomioka et al. ('560) teaches away from heating or tempering temperature above 700 °C as undesirable. In response, the examiner notes the ground of rejection of the claimed annealing schedules relies on the teaching of JP ('656) rather than Tomioka et al. ('560). Furthermore, it is well held that mere disclosure of alternative designs does not teach away. See In re Fulton, 391 F. 3d 1195, 1201, 73 USPQ2d 1141, 1146 (Fed. Cir. 2004).

### ***Conclusion***

Art Unit: 1793

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Weiping Zhu whose telephone number is 571-272-6725. The examiner can normally be reached on 8:30-16:30 Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1793


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Roy King/  
Supervisory Patent Examiner, Art  
Unit 1793

WZ

10/28/2008



<div>Application Number</div> <div></div>	Application/Control No.	Applicant(s)/Patent under Reexamination	
	10/789,322	ANDO ET AL.	
	Examiner	Art Unit	
	WEIPING ZHU	1793	